

REMARKS

The specification has been amended to correct minor typographical errors and employ more idiomatic English.

Claim 1 has been amended to clarify the invention. No new matter has been entered.

Turning now to the art rejection, and considering the rejection of claims 1-6 and 13-19 as obvious over Koike et al. (U.S. Patent No. 6,310,672), in view of Akutsu et al. (U.S. Patent No. 6,224,735), Applicant respectfully submits that this rejection has been made in error. The problem which the present invention solves is inherent in a liquid crystal display creating the lateral electric field for making pixels selectively transparent. The structure according to the present invention is effective against the electric charges moved into the color filter layers. The structure defined in the claims is neither taught nor suggested in Koike et al. or Akutsu et al. The purpose and structure of Koike et al. and Akutsu et al. are different from those of the present invention. Independent claims 1 and 15 both require "a piece of material inserted between said black matrix and said color filter layers and larger in resistivity than said black matrix and said color filter layers." While Koike et al. teaches what might be deemed "a piece of material" located between the black matrix 2 and the color filter layers 3R, 3G, 3B, this "piece of material" is a planarizing resin layer 4, which is disposed as shown, e.g., in Figure 1B, to level the asperity of the substrate surface made by the formation of the color filters 3R, 3G, 3B and the black matrix 2 (col. 4, lines 34-42). As the Examiner acknowledges, Koike et al. is silent regarding the resistivity of the piece of material with respect to the color filter layers and the black matrix (page 2 of Official Action). Akutsu et al. does not supply the missing teachings. Akutsu et al. teaches the formation of a red electrode deposition film having a

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volume resistivity of 3×10^8 ohm-cm (col. 14, lines 7-10). Nowhere does Akutsu et al. teach the importance of the relationship between this described resistivity and any other layers. The Examiner attempts to supply the missing teaching by taking official notice that “it is well known to use even higher resistive materials for overcoat layers in order to protect the underlying layers.” Applicant respectfully disagrees with the Examiner’s official notice and characterization of the invention, as Applicant’s use of a material having a higher resistivity than the black matrix and the color filter layers being disposed therebetween is not at all done to protect the underlying layers, but rather, to prevent current from flowing from the black matrix 7 into the color filter layers 8 (specification, p. 14, lines 7-8; p. 18, line 18 through p. 19, line 2). The presence of the overcoat layer having a higher resistivity than the black matrix end of the color filter layers serves to protect the color filter layers from the electric charge, and from current flowing over the color filter layers, thereby increasing contrast in visual images displayed due to the reduction of after image on the matrix of pixels. Applicant further respectfully disagrees with the Examiner’s characterization that “materials with the claimed resistivity properties are not novel in the art, nor critical to the invention.” To the contrary, as can be understood from the title of the invention, “In-Plane Switching Mode Active Matrix Liquid Crystal Display Panel Having Highly Resistive Layer Inserted in Gap Black Matrix and Color Filters in Process for Fabrication Thereof,” this feature is indeed important to the invention! The fact that a material having a high resistivity is inserted between the black matrix and color filter layers is central to the invention, regardless of which particular high resistivity materials are used for this purpose. Since none of the references cited, taken together or separately, teaches each and every element of amended claim 1 or claim 15,

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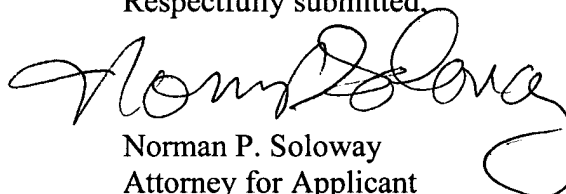
Applicant respectfully submits that these claims are patentable over the cited references, and that the rejection should be withdrawn. Claims 2-6, 13, 14, and 16-19, all of which depend either from claim 1 or claim 15, are patentable for the reasons stated with respect to claims 1 and 15, as well as for their own additional limitations. These claims are also allowable over the art cited, and the pending rejection is in error.

The allowability of claims 7-12 is noted, with thanks. However, it is believed that all of the pending claims are allowable.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action are respectfully requested.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

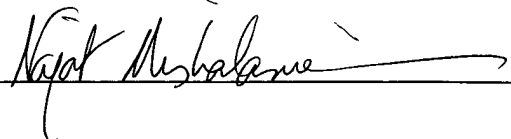
Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 3, at Tucson, Arizona.

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